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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/765,028

Applicant(s)

KINZER, DWIGHT ERIC

Examiner

Phi D. A

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 and 57 is/are pending in the application.
- 4a) Of the above claim(s) 3-11, 17, 18, 25, 26, 30 and 46 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 12-16, 19-24, 27-29, 31-45, 47-55, 57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. PRODUCT BY PROCESS CLAIM:

“ The subject matter present is regarded as a product by process claim in which a product is introduced by the method in which it is made. It is the general practice of this office to examine the final product described regardless of the method provided by the applicant.”

The above office policy applies to the product by process limitations of claims 36, 49, and 55.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 12-13, 43-44, 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Societe Meusienne (GB1033890) in view of Overbo (4566247).

Meusienne (figure 7b, figure 5a) shows a structural column, comprising: a plurality of column components, said column components including a plurality of column panels, each column panel comprising a top edge, a bottom edge, a first flat side, a second flat side, an inward-facing surface and an outward-facing surface, said first flat side directly connected to said second flat side, a plurality of said column panels being aligned in a first horizontal array about a vertically oriented common central axis, such that said angle is of a magnitude to allow inward-facing surface of said first flat side of one column panel to align with said inward-facing surface of said second flat side of an adjacent column panel, a plurality of said column panels being aligned in a second horizontal array of column panels, similar to said first horizontal array, said first and second horizontal arrays of column panels being aligned along said vertically

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oriented common central axis to form two adjoining horizontal arrays, wherein at least one column component within said first horizontal array being attached to a component within said second horizontal array, and at least one column component within said second horizontal array being attached to a component within said first horizontal array, at least one of said column panels of said first horizontal array being of a substantially different vertical length from other column panels therein such that said bottom edges of column panels within said first horizontal array are offset in different horizontal planes from each other and said top edges are generally in the same horizontal plane (figure 16) and at least one of said column panels of said second horizontal array is of a substantially different vertical length from other column panels therein such that said top edges are offset in different horizontal planes from each other, said bottom edges are generally in the same horizontal plane (figure 16), said first and second flat sides of at least one offset column panel in said first horizontal array being attached to at least second and first flat sides, respectively, of an offset column panel in said second horizontal array, said column panels being staggered within said first and second horizontal arrays, so as to form a staggered relationship having a plurality of seams, said seams occurring where said top and bottom edges of said column panels meet, said seams lying in substantially different horizontal planes from each other throughout said column, said column panels within said column being offset, or staggered, thereby creating column strength, at least one intermediate horizontal array (see figure 17) that lies between said first and second horizontal arrays, said top edges of column panels within said intermediate horizontal array aligning with said bottom edges of column panels within said first horizontal array, said flat sides of at least one column panel in said intermediate array aligning with said flat sides of a column panel in said first horizontal array,

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said flat sides of another column panel in said intermediate array aligning with said flat sides of a column panel within said second horizontal array, and said column panels within said intermediate horizontal array maintaining said staggered relationship, separations (the separation is due to the minor gap created by the manufacturing tolerances within the structures) between said top and bottom edges of said vertically-aligning column components, said separations being of a predetermined magnitude, said predetermined magnitude generally not exceeding a thickness of said column components, thereby allowing said column to better withstand bending, twisting, expansion, and contraction forces.

Meusienne does not show the first flat side being arranged at an obtuse angle from the second flat side.

Overbo discloses a column formed of panels having first and second flat sides (figure 2), the first flat sides being arranged at an obtuse angle relative to each other to form a three-sided column.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Meusienne's structure to the first flat side being arranged at an obtuse angle from the second flat side because it would enable easy formation of a column with three sides at taught by Overbo.

Per claim 12, Meusiene as modified shows all the claimed limitations except for said column components have a gradation in thickness, such that thicker components are generally in lower horizontal arrays and thinner components are generally in upper horizontal arrays.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Meusienne's modified structure to show said column components have a

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gradation in thickness, such that thicker components are generally in lower horizontal arrays and thinner components are generally in upper horizontal arrays because having thicker lower column components would strengthen the column against high load, and it is well known in the art that a structure which supports the most weight need to be stronger than a structure supporting less weight, and modifying the column components with thicker lower arrays would provide for a lower stronger structure which supports higher weight.

Per claim 13, Meusienne as modified shows all the claimed limitations except for said column components have a gradation in width of flat sides, such that components with wider flat sides are generally in lower horizontal arrays and narrower flat sides are generally in upper horizontal arrays.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Meusienne's modified structure to show said column components have a gradation in width of flat sides, such that components with wider flat sides are generally in lower horizontal arrays and narrower flat sides are generally in upper horizontal arrays because having wider lower flat sides would strengthen the column against high load, and it is well known in the art that a structure which supports the most weight need to be stronger than a structure supporting less weight, and modifying the column components with wider lower arrays would provide for a lower stronger structure which supports higher weight.

4. Claims 14, 16, 19, 27-28, 33-36, 47, 49, 51-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Societe Meusienne (GB1033890) in view of Overbo (4566247) as applied to claim 1 above and further in view of Fairchild (3327870).

Meusienne shows all the claimed limitations except for structural components, said structural components being attached to a plurality of said columns to form a structure, said structure having a geometric shape in horizontal cross section, said structural components comprising a plurality of wall panels and horizontal cross members that join one column to another and attach directly to column components, thus forming multiple horizontal strata of said structure, said strata including a top horizontal stratum, at least one intermediate horizontal stratum, and a bottom horizontal stratum.

Fairchild Jr. shows structural components being attached to a plurality of said columns to form a structure, the structure components having a plurality of wall panels and horizontal cross members that join one column to another and attach directly to column columns thus forming multiple horizontal strata of the structure, said strata including a top horizontal stratum, at least one intermediate horizontal stratum, a bottom horizontal stratum.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Meusienne's modified structure to show structural components being attached to a plurality of said columns to form a structure, the structure components having a plurality of wall panels and horizontal cross members that join one column to another and attach directly to column columns thus forming multiple horizontal strata of the structure, said strata including a top horizontal stratum, at least one intermediate horizontal stratum, a bottom horizontal stratum as taught by Fairchild Jr. because it would enable the connecting of columns together to form a bin construction as taught by Fairchild Jr.

Per claim 16, Meusienne as modified further shows at least one said additional horizontal cross members joining two columns and attaching to the outward facing surface of the columns.

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Per claim 19, Meusienne' as modified further shows said horizontal cross members are wall panels that are substantially rectangular in shape, and comprise a top edge, a bottom edge, and two side edges, and said wall panels aligning with one another vertically to form a wall, or partition, said wall beginning and ending at predetermined vertical heights along said column.

Per claims 27-28, Meusienne as modified further shows at least one of the horizontal cross members is a beam with angle flanges, the beam comprising top and bottom edges and two side edges, at least one side edge attached directly to the column component with fastening means.

Per claims 33-36, Meusienne as modified further shows one of said columns attaches at or near a location where a side edge of one said horizontal cross member aligns with a side edge of another horizontal cross member, said column thus effectively covering a vertically-oriented seam where side edges of horizontal cross members meet or nearly meet, thus serving as a side support column, and thereby extending the horizontal length of a side of said structure, at least one of said horizontal cross members attaches to said columns that extend above said walls of said structure, thereby forming at least one upper level above said walls, at least one of said horizontal cross members attaches to at least one said column to form a structural load-bearing tower, said structural column can be erected, using jacking means, within an existing structure, thereby utilizing existing infrastructure.

Per claim 47, 49, 51-55, Meusienne as modified further shows a plurality of columns are attached to horizontal cross members and are arrayed to form a structure, said structure comprising a geometric shape in horizontal cross section, a plurality of horizontal cross members comprising wall panels and beams, said structure comprising a top horizontal stratum and a

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bottom horizontal stratum, said top horizontal stratum comprising said column components from said first horizontal array of column panels and said horizontal cross members attached thereto, and said bottom horizontal stratum comprising said column components from said second horizontal stratum and said horizontal cross members attached thereto, multiple compartments with shared walls, a plurality of said columns extends continuously above said compartment to serve as columns that can support at least one upper level compartment above said compartment, a plurality of said columns extends continuously below said compartment, to serve as structural support columns for said structure, further including a plurality of interconnected compartments.

5. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Societe Meusienne (GB1033890) in view of Overbo (4566247) as applied to claim 44 above and further in view of Bright (6223494) and Dunne (3564783).

Meusienne shows all the claimed limitations except for additional column components that are attached to said outward-facing surfaces of said column components, said column components comprising at least one column splice panel wherein said first and second flat sides of said column splice panel being attached to first and second sides, respectively, of said outward facing surfaces of at least two vertically-aligning underlying column components, respectively, said column splice panel overlapping said seam of said underlying column components, thus effectively covering said seam of underlying column components and creating a plurality of layers of column components, said layers comprising an outer layer of column components and an inner layer of column components wherein staggered relationships with seams are formed, said seams occurring in different horizontal planes from said seams of adjacent layers.

Bright shows splice panels (112, figure 6) being attached to the first and second flat sides of a column to enable the easy mounting of a structure to a column.

Dunne shows splice panels connecting and covering a joint between columns to securely connect the columns together (figure 7).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Meusienne's modified structure to show additional column components that are attached to said outward-facing surfaces of said column components, said column components comprising at least one column splice panel wherein said first and second flat sides of said column splice panel being attached to first and second sides, respectively, of said outward facing surfaces of at least two vertically-aligning underlying column components, respectively, said column splice panel overlapping said seam of said underlying column components, thus effectively covering said seam of underlying column components and creating a plurality of layers of column components, said layers comprising an outer layer of column components and an inner layer of column components wherein staggered relationships with seams are formed, said seams occurring in different horizontal planes from said seams of adjacent layers because having splice panel attaching to the column panels would enable the easy attachment of the other structures to the column, and having the splice panel covering the joint between columns would reinforce the columns at the joint as taught by Dunne.

Meusienne as modified shows all the claimed limitations.

6. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Societe Meusienne (GB1033890) in view of Overbo (4566247) as applied to claim 1 above and further in view of Sams.

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Meusienne as modified shows all the claimed limitations except for at least one of said horizontal cross members is sandwiched between said inward-facing surfaces of said columns and attached thereto.

Sams shows at least one of said horizontal cross members (26) being sandwiched between said inward-facing surfaces of said columns and attached thereto.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Meusienne's modified structure to show at least one of said horizontal cross members is sandwiched between said inward-facing surfaces of said columns and attached thereto because it would enable the secure connecting of the horizontal cross members to the columns as taught by Sams.

7. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meusienne in view of Overto, Fairchild Jr. (3327870) as applied to claim 19 above and further in view of Smith (1250685).

Meusienne as modified shows all the claimed limitations except for the wall panels having at least two substantially different vertical lengths so as to create a stagger of substantially horizontal oriented seams between the panels such that no seam, where top and bottom edges of the wall panels meet, is in the same horizontal plane as seams from adjacent walls.

Smith (figure 1) shows wall panels (3; 3) having at least two substantially different vertical lengths so as to create a stagger of substantially horizontal oriented seams between the panels such that no seam, where top and bottom edges of the wall panels meet, is in the same

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horizontal plane as seams from adjacent walls, the staggering provides for provide a good balance against stress and strains (col 2lines 18-29).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Meusienne's modified structure to show the wall panels having at least two substantially different vertical lengths so as to create a stagger of substantially horizontal oriented seams between the panels such that no seam, where top and bottom edges of the wall panels meet, is in the same horizontal plane as seams from adjacent walls because it provides for a good balance against stresses and strains as taught by Smith.

8. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meusienne in view of Overto, Fairchild Jr. (3327870) as applied to claim 19 above and further in view of Stafford (1261454).

Meusienne' as modified shows all the claimed limitations except for the wall panels having at least two substantially different horizontal lengths so as to create a stagger of substantially vertical oriented seams between the panels such that no seam, where side edges of the wall panels meet, such that no vertically oriented seam is in the same vertical plane as seams from adjacent walls.

Stafford (figure 1) shows wall panels (the panels between parts 25, 24) having at least two substantially different horizontal lengths so as to create a stagger of substantially vertical oriented seams between the panels such that no seam, where side edges of the wall panels meet, such that no vertically oriented seam is in the same vertical plane as seams from adjacent walls.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Meusienne's modified structure to show the wall panels having at least two

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substantially different horizontal lengths so as to create a stagger of substantially vertical oriented seams between the panels such that no seam, where side edges of the wall panels meet, such that no vertically oriented seam is in the same vertical plane as seams from adjacent walls as taught by Wilson et al because it allows for the mounting of panels between columns forming a tapering surface.

9. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Societe Meusienne (GB1033890) in view of Overbo (4566247) and Fairchild (3327870) as applied to claim 19 above and further in view of Kreizinger (5369930).

Meusienne shows all the claimed limitations except the panels being attached to outward facing surfaces of column components such that parallel outward facing surfaces have wall panels attached thereon to form a wall that comprises two walls that are parallel to each other with a gap therebetween.

Kreizinger shows panels being attached to outward facing surfaces of column components such that parallel outward facing surfaces have wall panels attached thereon to form a wall that comprises two walls that are parallel to each other with a gap therebetween.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Meusienne's modified structure to show the panels being attached to outward facing surfaces of column components such that parallel outward facing surfaces have wall panels attached thereon to form a wall that comprises two walls that are parallel to each other with a gap therebetween as taught by Kreizinger because it would allow for the easy formation of an insulating structure with panels and columns.

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10. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Societe Meusienne (GB1033890) in view of Overbo (4566247) and Fairchild (3327870) as applied to claim 19 above and further in view of Anderson et al (5539163).

Meusienne shows all the claimed limitations except the wall comprising a plurality of wall panels, said wall panels with surfaces aligned together and having substantially no gap between them, so as to form a multi-ply wall.

Anderson figure 4 shows a wall comprising a plurality of wall panels, said wall panels with surfaces aligned together and having substantially no gap between them, so as to form a multi-ply wall.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Meusienne's modified structure to show the wall comprising a plurality of wall panels, said wall panels with surfaces aligned together and having substantially no gap between them, so as to form a multi-ply wall because forming a multiply wall with no gap therebetween would create a good noise insulating structure as taught by Anderson et al.

11. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meusienne in view of Overto, Fairchild Jr. (3327870) as applied to claim 19 above and further in view of Robinson et al (638280).

Meusienne as modified shows all the claimed limitations except for a plurality of boreholes along said top, bottom, and side edges to allow fastening means to column and components.

Robinson et al shows a plurality of boreholes along said top, bottom, and side edges to allow fastening means to column and components.

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It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Meusienne's modified structure to show a plurality of boreholes along said top, bottom, and side edges to allow fastening means to column and components because it allows for easy attachment of the column components to other structure as taught by Robinson.

12. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Societe Meusienne (GB1033890) in view of Overbo (4566247) and Fairchild (3327870) as applied to claim 47 above and further in view of Vachon (3727355).

Meusienne as modified shows all the claimed limitations except for said structure having a circular horizontal cross section, said wall panels being arcuate in horizontal cross section and attached to column components, said columns thereby serving as stiffeners and structural support columns.

Vachon (figure 19) shows a structure having a circular horizontal cross section, said wall panels being arcuate in horizontal cross section and attached to column components, said columns thereby serving as stiffeners and structural support columns.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Meusienne's modified structure to show said structure having a circular horizontal cross section, said wall panels being arcuate in horizontal cross section and attached to column components, said columns thereby serving as stiffeners and structural support columns as taught by Vachon because forming a structure with circular, hexagonal, pentagonal, rectangular, or other geometric shapes are well known in the art, and it would have been obvious to one having ordinary skill in the art to choose any of the above well known shapes for forming a building structure.

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13. Claims 29,31-32, 41, 45, 47-49, 51-55, 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Societe Meusienne (GB1033890) in view of Overbo (4566247) and Fairchild as applied to claim 14 above and further in view of Sams.

Meusienne as modified shows all the claimed limitations except for at least one beam being a hopper beam, the hopper beam attached directly to a column and supporting a hopper panel, the panel being sloped downward at a predetermined angle, the angle generally ranging from 30-60 degrees from a vertical plane, corrugation of the hopper support beam aligning with the predetermined angle, the hopper panel arrayed about a central axis to form a hopper, the hopper comprising a top edge and lower aperture, the top edge being attached to the hopper support beams.

Sams shows at least one beam being a hopper beam, the hopper beam attached directly to a column and supporting a hopper panel, the panel being sloped downward at a predetermined angle, the angle generally ranging from 30-60 degrees from a vertical plane, corrugation of the hopper support beam aligning with the predetermined angle, the hopper panel arrayed about a central axis to form a hopper, the hopper comprising a top edge and lower aperture, the top edge being attached to the hopper support beams.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Meusienne's modified structure to show at least one beam being a hopper beam, the hopper beam attached directly to a column and supporting a hopper panel, the panel being sloped downward at a predetermined angle, the angle generally ranging from 30-60 degrees from a vertical plane, corrugation of the hopper support beam aligning with the predetermined angle, the hopper panel arrayed about a central axis to form a hopper, the hopper

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comprising a top edge and lower aperture, the top edge being attached to the hopper support beams because it allows for the supporting and formation of a hopper structure as taught by Sams.

Per claim 31, Meusienne as modified with Sam's multiple hopper teaching also shows a plurality of hoppers, said hoppers comprising a top edge and a lower aperture, said plurality of hoppers having said top edges attached to said columns on at least one predetermined vertical height

Per claim 32, Meusienne as modified further shows said structural column comprises a plurality of arced horizontal cross members in horizontal cross section to form a round structure, said columns being arrayed along the arc of said cross members and attached to said structure, thereby serving as both stiffeners and structural support columns.

14. Claims 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Societe Meusienne (GB1033890) in view of Overbo (4566247) as applied to claim 1 above and further in view of Robinson et al (838280).

Meusienne as modified shows all the claimed limitations except for an anchoring means attached to the base of said column, said anchoring means further includes a base plate that is attached with fastening means substantially horizontally to the very bottom of said column, said base plate having vertically oriented boreholes through which anchor bolts from a foundation may pass.

Robinson et al shows anchoring means anchoring columns to a supporting floor, said anchoring means further includes a base plate that is attached with fastening means substantially

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horizontally to the very bottom of said column, said base plate having vertically oriented boreholes through which anchor bolts from a foundation may pass.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Meusienne's modified structure to show an anchoring means attached to the base of said column, said anchoring means further includes a base plate that is attached with fastening means substantially horizontally to the very bottom of said column, said base plate having vertically oriented boreholes through which anchor bolts from a foundation may pass because it allows for the secure attachment of the column to a supporting floor to stably position the column as taught by Robinson et al.

Per claim 39, Meusienne as modified further shows vertical flanges mating with outside surfaces of column panels at base of said column, said vertical flanges having substantially horizontally-oriented boreholes that align with boreholes of said column panels for fastening means, said base plate having substantially vertically-oriented boreholes through which anchor bolts from a foundation may pass. Meusienne as modified does not show said anchoring means further includes a base plate that is welded to vertical flanges.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Meusienne's modified structure to show said anchoring means further includes a base plate that is welded to vertical flanges because using a unitary base plate with vertical flanges or a base plate welded to vertical flanges would have been obvious to one having ordinary skill in the art as it has been held that forming a structure in one piece or multiple pieces assembled together would be within one of ordinary skill in the art.

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15. Claims 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Societe Meusienne (GB1033890) in view of Overbo (4566247) and Robinson et al (838280) as applied to claim 37 above and further in view of Keil (6279288).

Meusienne as modified shows all the claimed limitations except for tabs are delimited along said bottom edges of column panels at base of said column, said tabs being bent outwardly and horizontally from said column panels, and said tabs attached with fastening means to a foundation.

Keil (figure 25) shows tabs are delimited along said bottom edges of column panels at base of said column, said tabs being bent outwardly and horizontally from said column panels, and said tabs attached with fastening means to a foundation.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Meusienne's modified structure to show tabs are delimited along said bottom edges of column panels at base of said column, said tabs being bent outwardly and horizontally from said column panels, and said tabs attached with fastening means to a foundation because it allows for easy attachment of the columns to a foundation as taught by Keil.

16. Claim 41 rejected under 35 U.S.C. 103(a) as being unpatentable over Societe Meusienne (GB1033890) in view of Overbo (4566247), and Robinson et al (838280) as applied to claim 37 above and further in view of D'Amato (4469956) and Keil.

Meusienne as modified shows all the claimed limitations except for tabs are delimited along said bottom edges of column panels in said second horizontal array, said tabs being bent outwardly and horizontally from column panels of said second horizontal array, said tabs being

attached with fastening means to a base plate, said base plate having vertically oriented boreholes through which anchor bolts from a foundation may pass.

Keil (figure 25) shows tabs are delimited along said bottom edges of column panels at base of said column, said tabs being bent outwardly and horizontally from said column panels, and said tabs attached with fastening means to a foundation.

D'Amato shows a bottom having a flange extending outwardly thereof, the flange resting on top of a base plate with vertically oriented boreholes through which anchor bolts from a foundation may pass.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Meusienne's modified structure to show tabs are delimited along said bottom edges of column panels in said second horizontal array, said tabs being bent outwardly and horizontally from column panels of said second horizontal array, said tabs being attached with fastening means to a base plate, said base plate having vertically oriented boreholes through which anchor bolts from a foundation may pass because it allows for easy and strong attachment of the columns to a foundation as taught by Keil and D'Amato.

17. Claim 42 rejected under 35 U.S.C. 103(a) as being unpatentable over Societe Meusienne (GB1033890) in view of Overbo (4566247) as applied to claim 1 above and further in view of Robinson et al (838280).

Meusienne as modified shows all the claimed limitations except for a plate is attached in a substantially horizontal plane to the very top of said column to provide a support panel on which roof components, mezzanine structures, distribution tracks, and equipment may rest.

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Robinson shows a plate is attached in a substantially horizontal plane to the very top of said column to provide a support panel on which roof components, mezzanine structures, distribution tracks, and equipment may rest.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Meusienne's modified structure to show a plate is attached in a substantially horizontal plane to the very top of said column to provide a support panel on which roof components, mezzanine structures, distribution tracks, and equipment may rest because it allows for the attachment of other supporting structures as taught by Robinson.

18. Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over Societe Meusienne (GB1033890) in view of Overbo (4566247), Bright (6223494), and Dunne.

Meusienne shows a structural column, comprising: a plurality of column that has at least an inner layer, said layer comprising a plurality of column components, said column components comprising column panels, each of said column component further comprising a top edge, a bottom edge, a first flat side, a second flat side, an inward-facing surface, and an outward-facing surface, said first flat sides of column components directly connected from said second flat sides, said inner layer comprising column panels that are arrayed horizontally about a vertically oriented common central axis to form at least one horizontal array, such that said inward-facing surfaces of said first flat sides of column panels generally converge in parallel with, and are attached with fastening means to, said inward-facing surface of said second flat sides of adjacent column panels within said horizontal array, said inner layer further comprising a plurality of said horizontal arrays of column panels that are aligned along said vertically oriented common central axis, such that top and bottom edges of column panels from adjacent horizontal arrays meet, thus

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creating seams, to form vertically-aligning arrays comprising at least a top horizontal array and a bottom horizontal array.

Meussienne does not show a plurality of column layers that comprise at least an inner layer and an outer layer, said layers comprising a plurality of column components, said column components comprising column panels and column splice panels, said column components comprising column panels and column splice panels, said first flat sides of column components being oriented at an obtuse angle from said second flat sides, said outer layer comprising column splice panels that overlap said seams within said inner layer, wherein top portions of said column splice panels attach to bottom portions of column panels within a next upper array of said inner layer, and bottom portions of said column splice panels attach to top portions of column panels within a next lower array of said inner layer, said column splice panels aligning vertically with each other within said intermediate layer so that seams are created where said top and bottom edges of said column splice panels meet.

Overbo discloses a column formed of panels having first and second flat sides (figure 2), the first flat sides being arranged at an obtuse angle relative to each other to form a three sided column.

Bright shows splice panels (112, figure 6) being attached to the first and second flat sides of a column to enable the easy mounting of a structure to a column.

Dunne shows splice panels connecting and covering a joint between columns to securely connect the columns together (figure 7).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Meusienne's structure to show additional column components that are

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attached to said outward-facing surfaces of said column components, said column components comprising at least one column splice panel wherein said first and second flat sides of said column splice panel being attached to first and second sides, respectively, of said outward facing surfaces of at least two vertically-aligning underlying column components, respectively, said column splice panel overlapping said seam of said underlying column components, thus effectively covering said seam of underlying column components and creating a plurality of layers of column components, said layers comprising an outer layer of column components and an inner layer of column components wherein staggered relationships with seams are formed, said seams occurring in different horizontal planes from said seams of adjacent layers because having the first and second sides forming an obtuse angle would enable easy formation of a column with three sides as taught by Overbo, having splice panel attaching to the column panels would enable the easy attachment of the other structures to the column, and having the splice panel covering the joint between columns would reinforce the columns at the joint as taught by Dunne, and it would have been obvious to one having ordinary skill in the art to modify Meusienne's modified structure to show said column splice panels aligning vertically with each other within said intermediate layer so that seams are created where said top and bottom edges of said column splice panels meet since it allows for the attachment of the splice panels over a long area of a column with the load being distributed to the multiple sections of a column.

Meusienne as modified shows all the claimed limitations.

Response to Arguments

1. Applicant's arguments filed 8/2/07 have been fully considered but they are not persuasive.

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attached to said outward-facing surfaces of said column components, said column components comprising at least one column splice panel wherein said first and second flat sides of said column splice panel being attached to first and second sides, respectively, of said outward facing surfaces of at least two vertically-aligning underlying column components, respectively, said column splice panel overlapping said seam of said underlying column components, thus effectively covering said seam of underlying column components and creating a plurality of layers of column components, said layers comprising an outer layer of column components and an inner layer of column components wherein staggered relationships with seams are formed, said seams occurring in different horizontal planes from said seams of adjacent layers because having the first and second sides forming an obtuse angle would enable easy formation of a column with three sides at taught by Overbo, having splice panel attaching to the column panels would enable the easy attachment of the other structures to the column, and having the splice panel covering the joint between columns would reinforce the columns at the joint as taught by Dunne, and it would have been obvious to one having ordinary skill in the art to modify Meusienne's modified structure to show said column splice panels aligning vertically with each other within said intermediate layer so that seams are created where said top and bottom edges of said column splice panels meet since it allows for the attachment of the splice panels over a long area of a column with the load being distributed to the multiple sections of a column.

Meusienne as modified shows all the claimed limitations.

Response to Arguments

1. Applicant's arguments filed 8/2/07 have been fully considered but they are not persuasive.

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2. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the reason to combine is found in the knowledge generally available to one of ordinary skill in the art. Meusienne discloses a column structures with four parts. Overbo discloses the formation of a column with three legs to form a triangular column structure. A person having ordinary skill in the art would have found it obvious to modify Meusienne's structure with Overbo to form a triangular column structure when a triangular column is desired to fit a particular application.

Applicant's arguments to other rejections above are also moot as applicant's argument to Meusienne and Overbo are not persuasive.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phi D A whose telephone number is 571-272-6864. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on 571-272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phi Dieu Tran A



10/15/07



RICHARD E. CHILCOT, JR.
SUPERVISORY PATENT EXAMINER